A Field Guide to *Sustainability*

An introduction to sustainability concepts and a framework for decision making

Key Principles of Sustainability

Many organizations have adopted goal statements that focus on achieving a sustainable future. While these vary widely in specific wording, they show a surprising degree of convergence around several key ideas:

- **Whole-systems thinking**–the integration of social, environmental, and economic forces, also known as the triple bottom-line;
- **Long term thinking**–understanding the consequences of actions over time, and preserving choices and opportunities for future generations;
- **Recognizing limits**–an acknowledgement that people, economies, and all life depend on healthy functioning ecosystems; and
- **Improved livelihoods**–a better "quality of life," both today and for future generations.

When these ideas are considered and applied to real world situations, a basic set of principles emerge that can define sustainability.

- **Meeting human needs fairly and efficiently**, giving priority to basic needs;
- **Reducing dependence on non-renewable energy sources** and those energy sources that have detrimental effects on human and environmental health;
- **Reducing the economy's reliance on limited raw materials and resources** for which the extraction and manufacturing processes produce dangerous byproducts that do not degrade in nature;
- **Increasing the efficiency** and productivity of natural resources;
- **Reducing dependence on synthetic compounds** that do not break down in nature;
- **Reducing or eliminating waste;**
- **Reversing the decline of natural resources** and the viability of ecosystems; and
- **Anticipating and preventing problems** rather than trying to react and fix them after they occur.

Cover photos: SOCIAL: Happy young girl, image by Getty Images; ENVIRONMENT: Vansycle Ridge wind farm, image courtesy Portland General Electric; ECONOMY: Picking Loganberries, image by Katy Langstaf, Ecotrust.

A Field Guide to *Sustainability*

INSIDE:

WASHINGTON STATE DEPARTMENT OF ECOLOGY

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photo courtesy of Stacie Singleton

"Living and governing for the future demands that we look at the complex problems of water, energy, growth management, community and economic development from a system-wide approach—examining how they are connected and integrated. That's the heart of sustainability."

Governor Gary Locke
Guardian of the Future Speech

"To achieve sustainable development, some things must grow—jobs, productivity, wages, capital and savings, profits, information, knowledge, and education—and others—pollution, waste, and poverty—must not."

The President's Council on Sustainable Development 1994

Introduction

Washington is a state rich in natural beauty, and diverse economic opportunities. Many people choose to live here because they value a high quality of life: meaningful work, strong communities, and a healthy and clean environment. But, as our population increases, ensuring that these qualities of our state continue for future generations becomes one of the defining challenges of our time.

The concept of sustainability represents a way to think systematically, and to find long term solutions to the problems we face in our communities, our economy, and our environment.

Washington is well positioned to take on the challenge of a sustainable future. In February 2002, Washington was recognized for its "commitment to ecology, economy, and people" by receiving the "Guardian of the Future" award from the Resource Renewal Institute (RRI), a non-profit, non-governmental organization that promotes innovative environmental management strategies. In accepting the award, Governor Gary Locke proclaimed, "I pledge our state's commitment to sustainability"

Our challenge now is to develop a common understanding of the principles of sustainability and to define how we can move towards it. This Field Guide is intended to offer a compact introduction to sustainability, and through examples, illustrate how Washington state can benefit from adopting new approaches. At the end of the guide you will find the Checklist (starting on page 10), which can be used as a tool to evaluate decisions or actions based on sustainability principles.

What is sustainability?

The terms "sustainability" and "sustainable development" have been part of local, national, and global discussions for more than a decade. The most commonly quoted definition is from the United Nations 1987 publication *Our Common Future*, known as the *Brundtland Report*. It brought the concept of sustainable development to the public arena in a comprehensive statement:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

This statement addresses the importance of looking at needs, limits, and equity over time and acknowledges that the world will continue to "develop". To many, the word development conjures up images of strip malls, highways, and sprawl, and is frequently associated with growth. To accept the idea of sustainable development, we need to separate development from growth. Growth, which implies more of something, is inherently unsustainable over the long term in a world of depleting resources and increasing populations. Development must be seen as change which improves quality without necessarily causing an increase in resource consumption.

goals of sustainable development

- **Provide a high quality** of life for present & future generations.
- **Do this without exceeding** the environment's ability to recycle wastes, provide resources & support a rich diversity of life.
- **Meet current needs** while leaving future generations as many options for resource use and development as possible.

Sustainable Development—The Very Idea
Minnesota Environmental Quality Division

Literally, the word sustainable means "to keep going; prolong", but when we refer to an activity as being sustainable, we do not simply mean it is capable of being maintained at a consistent rate. A sustainable project, plan, goal, or objective must systematically address environmental, economic, and social issues over the long term. Many traditional cultures hold this value very strongly. For example, in their councils, the Iroquois and other Native American groups require that each decision be evaluated by asking "What impact will this have on the seventh generation from today?"

Like "democracy," a word wholly embraced by people with vastly different interpretations about what it means in practice, sustainability is difficult to define with great precision. This lack of precision, however, has not kept the concept from becoming ever more important in considerations about how we as a society should approach the future.

The Emerging Consensus for Sustainability

When Rachel Carson first called attention to the consequences of toxic chemicals building up in the environment in her 1962 book *Silent Spring*, a controversial debate began. Was the technological "progress" we were supporting actually destroying the very foundations of life? The debate continued over the next two decades.

The United Nations Commission on Environment and Development began its comprehensive study of global development trends for the *Brundtland Report*, in the 1980's. Many acknowledged the need for scientifically based information to validate the assertions that future populations and ecosystems could not survive current rates and patterns of consumption. A framework based on fundamental principles of science was needed.

The Natural Step

In 1989, Dr. Karl Henrik Robèrt, a scientist at a leading cancer research institute in Sweden, founded The Natural Step—a scientifically based framework for sustainable decision-making. Its four System Conditions for Sustainability were developed by a group of 50 scientists, who were asked to outline the fundamental principles necessary for a sustainable society and economy. The framework does not offer quick steps to achieve sustainability, but provides a set of "science-based compass headings that allow each individual, business, or organization to decide how best and quickly to meet the conditions."

The Natural Step framework strives to eliminate endless and expensive disagreements over appropriate risk levels or potential long term effects of a product or process. If an activity continually violates the system conditions, it cannot be sustained over the long term. The Natural Step system conditions are becoming internationally recognized and increasingly accepted as a compass to guide an organization towards sustainability.

the natural STEP system conditions

System Condition 1:
Substances from the earth's crust must not systematically increase in nature. This means: fossil fuels, metals and other minerals must not be extracted from the earth and allowed to accumulate at the surface at a faster rate than their slow redeposit into the Earth's crust.

System Condition 2:
Substances produced by society must not systematically increase in nature. This means: synthetic substances must not be produced faster than they can be safely broken down in the cycles of nature.

System Condition 3:
The physical basis for the productivity and diversity of nature must not be systematically deteriorated. This means: we must not harvest more from nature than can be recreated or renewed.

System Condition 4:
There must be fair and efficient use of resources with respect to meeting human needs. This means: basic human needs must be met with the most resource efficient methods possible, including equitable resource distribution.

Delegates from the World Summit on Sustainable Development, Johannesburg, South Africa, 2002 in a plenary meeting on biodiversity/ecosystem management.

"We recognize that poverty eradication, changing consumption and production patterns, and protecting and managing the natural resource base for economic and social development are overarching objectives of, and essential requirements, for sustainable development."

Johannesburg Declaration on Sustainable Development

The Last Decade

In 1992 nearly 180 nations gathered in Rio de Janeiro for the U.N. Conference on Environment and Development (UNCED), also known as the "Earth Summit". At that conference, a commitment was made by over 150 nations, including the United States, to a plan that requires nations to develop a comprehensive strategy for sustainable development. This plan was called Agenda 21. In June of 1993 President Clinton responded to this commitment by signing Executive Order 12852 which established the President's Council on Sustainable Development. In its final report, the Council recommended over 140 actions that "will improve our economy, protect our environment, and improve our quality of life." The Council provided the leadership and groundwork for States to take on their own sustainability initiatives.

Since the early 1990s, the list of organizations embracing the goals of sustainability has continued to grow. Governments, businesses, and communities around the world have begun creating policy, designing strategies, and offering educational opportunities based on a commitment to developing sustainable solutions. With the introduction of models for reporting and measuring success such as the Global Reporting Initiative (GRI) and the Dow Jones Sustainability Index, progress towards sustainable business and development can now be tracked and measured.

The Current Consensus

2002 marked the 10 year anniversary of the Earth Summit. In September, world leaders once again met at the World Summit on Sustainable Development in Johannesburg to strengthen the global commitment to fight poverty and protect the environment. Over 220 partnerships were formed across various sectors and nations to promote business, policies and development that address social, environmental, as well as economic consequences. Consideration of the long term impacts on these three areas—economy, environment, and community—is the heart of sustainable decision-making.

Many companies in the Pacific Northwest today are adopting **The Natural Step** principles as a framework for decision-making, including Collins Pine Lumber Co., and Norm Thompson Outfitters. For more information on The Natural Step, visit their website: www.naturalstep.org/

Why should Washington state adopt a sustainable vision for the future?

Some current statistics and what they tell us:

The state's average population growth rate from 1990 to 2001 was on a par with that of India and was the tenth highest in the US.

Northwest Environment Watch

Over the last 30 years, more than 2.3 million acres of our forest lands have been converted to other uses.

Washington State Department of Natural Resources

"The extraction, conversion, and utilization of energy is the single largest component of air and water pollution, as well as emissions causing the change of our global climate."

Christine A. Ervin
Assistant Secretary
Energy Efficiency and Renewable Energy

The average American produces 23 pounds of waste per week. Per capita consumption in the US has risen 45% in the past 20 years.

State of the Community Report
Sustainable Community Roundtable

• Population

The population of Washington according to 2000 census figures is nearly six million, a 21.1% increase from 1990. Of those approximately 6 million people, over half live in 3 counties in the Puget Sound area (King, Pierce, and Snohomish). The projected population of the state in 2025 is over 7.8 million.

• Land Use

Uncontrolled sprawl is diminishing our ecosystem capacity. Washington ranks 15th on the national list of states with the fastest development rates, and loses 30,000 acres of wildlife habitat each year.

• Energy

Use of fossil fuels contributes to greenhouse gas emissions and disruption of ecosystems. While Washington's electricity prices remain lower than the national average, the 2000-2001 drought, and simultaneous problems in the California power markets, created a situation in which energy prices increased significantly, threatening the ability of many of the state's industries to operate competitively. It is expected that we will continue to experience volatility in the gas industry which currently is the anticipated source of new energy generation in the state. Commercial sector electric consumption has nearly quadrupled since 1970 and is predicted to continue rising beyond this rate. If all the power plants scheduled to come on line to feed this demand were authorized, an additional 18.5 million tons of CO_2/year would be emitted into the air. Shifting to cleaner, renewable sources such as wind and solar, and promoting increases in efficiencies offer areas of potentially huge economic development and security for the state.

• Waste

According to the Department of Ecology Solid Waste Report data, the amount of material recycled over the past 10 years has increased slightly from approximately 2.1 lbs per person/per day to approx 2.3. However, the amount of waste discarded has grown from approximately 4.7 lbs per person/per day to approx 6.1—a 30% increase. We are using more and wasting more.

The (Pacific Northwest) region sent an estimated 194 million tons of carbon dioxide from fossil fuels into the sky, the daily equivalent of 70 pounds of carbon dioxide per northwesterner. Burning fossil fuels now accounts for nearly 70 percent of the Northwest's total contribution to global warming.

Northwest Environment Watch

photo courtesy of Sound Transit

Link trains, which are currently being tested, will link communities with light rail service in the future.

• Transportation

While population has grown approximately 40% over the past 20 years, the amount of vehicle miles traveled by Washingtonians has risen 60%. This has led to what many consider a transportation crisis in our state. Measures of urban congestion rank Washington among the worst in the nation. In 1998 the Governor and Legislature created the Blue Ribbon Commission on Transportation to study the existing state of transportation and make recommendations on how to address the problems. The Report, issued in December of 2000, stated that "in 20 years if nothing changes, the Puget Sound Region will experience severe traffic on every major roadway during most of the day".

75% of the State's CO_2 emissions, and close to half of the state's energy consumption comes from transportation.

2001 Biennial Energy Report
Office of Trade and Economic Development

• Health

Millions of tons of toxic chemicals are released to air, land and water each year. Fish and/or shellfish consumption advisories due to chemical contamination have been issued for at least 80 different water bodies in the state. Health impacts of these exposures can include asthma, birth defects, behavioral disorders, learning disabilities, autism, cancer, impaired immune systems, neurological impairments, reproductive disorders, and even death.

It is estimated that we all carry about 80-100 chemicals in our bodies that did not exist just 60 years ago.

Institute for Children's Environmental Health

• Poverty

12% of people in Washington live in poverty (compared to 11.3% nationwide). According to the 2002 State of Washington's Children report, 73% of Washington families living in poverty are headed by working adults. People living in poverty are not getting their needs met, and are more often exposed to harmful pollutants, with less access to health care.

In its Environmental Equity Study, the Department of Ecology found that in Washington State there are a greater number of facilities discharging toxic waste located in low income and minority communities.

"Reversing the steady decline in the natural resources and ecosystems on which people and economic vitality depend is critical to our future;

Within state government, sustainable practices require decisions based on a systematic evaluation of the long-term impacts of an activity or product on health and safety, communities, and the environment and economy of Washington State."

Excerpt from Govenor Locke's Executive Order 02-03

Towards a Sustainable Washington

In June of 2001, approximately 100 leaders representing a broad diversity of organizations and institutions gathered at the Leadership Summit for a Sustainable Washington to discuss a strategic approach to sustainability in the state. The Summit kicked off a dialogue that highlighted the need for strong executive leadership and diverse coalitions as keys to building support. On September 18th, 2002, Governor Locke signed Executive Order 02-03, Sustainable Practices by State Agencies, which commits state government to conduct its business operations in a way consistent with the principles of sustainability.

In conjunction with the Executive Order, a multi-stakeholder Advisory Panel was convened to recommend an action plan on how the state should move forward towards a sustainable future. For information on the results of the panel's work, visit their website at *www.sustainableseattle.org/sustpanel/.*

Some cities have developed their own sustainability initiatives. The Seattle Office of Sustainability and Environment was created by ordinance in the fall of 2000 to provide leadership, tools, and information to help reduce the environmental impacts of city operations, and assist Seattle business and citizens in adopting more sustainable practices. The City of Seattle is also currently working on a project in partnership with a non-profit group, Sustainable Seattle, to identify sustainability indicators for neighborhoods and linking those to the delivery of city services.

Many Washington businesses have begun to include sustainability related goals into their mission statements and shift their practices accordingly. The World Business Council on Sustainable Development has shown through examples how eliminating waste, producing a superior product, and utilizing renewable energy sources make businesses more profitable and create strategic advantage in addressing emerging markets and constraints. In addition, a

"160 Firms in the Pacific Northwest have reduced their costs by more than $55 million annually by reducing their impact on natural ecosystems, diminishing raw materials, and eliminating excess energy and water use."

Center for Watershed and Community Health

people

profits

planet

triple bottom line

At the Leadership Summit for a Sustainable Washington, one hundred leaders from all sectors came together to begin charting a sustainable future for the state.

growing number of consumers are beginning to demand that the businesses they support are environmentally and socially responsible.

Several citizen groups and non-profits in Washington have projects that focus on promoting a more sustainable economy and society. These organizations offer many opportunities to learn more about the practical application of sustainability principles. *For a list of organizations in the Pacific Northwest that promote sustainability, please refer to the appendix.*

Governments, businesses, and communities all over the world are recognizing that we must support an economy that effectively meets human needs while respecting natural systems. Environmental, Economic, and social goals need to be addressed simultaneously in decision-making in order to maintain a high quality of life for future generations of Washingtonians. This is the goal of sustainable decision-making. Through the adoption of a sustainability framework, and collaboration among citizens, businesses, and government, we can ensure that our political and economic systems are efficient, productive, and protect the natural systems on which all life depends.

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."

Margaret Mead

A Strategic Approach for Washington State

- **GOVERNMENT** must make a commitment, act as a convener for a common vision, set long-term goals, develop and implement incentives, use its purchasing power to create markets, view sustainability as a statewide bipartisan issue and provide resources to support community involvement.
- **BUSINESS** needs to look at long-term, rather than exclusively short-term profits, be part of defining a vision for the state, report to shareholders on the triple bottom line (economic performance, environmental stewardship, social justice) and move towards providing services rather than products.
- **CITIZENS** must communicate their expectations to business and government, support sustainable corporations or products and raise sustainability as an election issue.

Leadership Summit for a Sustainable Washington

"The states that do the most to protect their natural resources also wind up with the strongest economies and best jobs for their citizens."

Institute for Southern Studies

Sustainability Checklist

A train going faster and more efficiently in the wrong direction will still not get you to where you want to go. In order to move in the direction of sustainability, we need a framework to evaluate decisions to ensure we are headed down the right path.

A Framework for Decision Making

The Checklist is a tool to guide you toward decisions and actions that are sustainable over the long term. It is not intended to be used as a way to "check-off" accomplishments, but rather as a gauge to see where an activity is on the "sustainability continuum". Not all statements will be relevant to every project, plan, goal, or objective. They are designed to provoke thinking about the impacts of an activity in a broader context than we might otherwise be used to.

In assessing whether or not an activity is sustainable, consider the following environmental, economic, and social impacts:

a sustainable activity is one that:

- Addresses the relationship between the **environmental, economic and social** aspects of an activity.
- Addresses **root causes** of problems and prevents or eliminates them, rather than dealing with their consequences.
- Avoids **shifting impacts** from one area to another in relation to the environment, the economy, and the community.
- Recognizes the **irreplaceable value** of natural capital in supporting all life.
- If not fully sustainable, provides a **transition** toward more sustainable outcomes.

Environmental Quality and Human Health

Batdorf and Bronson Coffee Roasters, an Olympia-based business, has offset all of its emissions of carbon dioxide and other gases through the Bonneville Environmental Foundation's Green Tags program. This program allows companies to support energy research and alternative sources of power, such as solar and wind energy, through their electricity billing.

A sustainable activity is one that:

❑ Uses clean renewable sources of energy instead of fossil fuels

Extracting and burning fossil fuels such as oil and coal is highly polluting, and the primary contributor to global climate change.

❑ Increases the efficiency of energy use and eliminates waste

Current technology such as improving mpg for vehicles, or using passive systems such as natural ventilation or solar heat in building design, allows us to dramatically increase our energy efficiency, which can save money, resources, and spur economic development.

❑ Increases the efficiency of water use and eliminates waste

The state's water supply needs to meet the needs of a growing population, the economy, and wildlife. In order to "be all things to all people, with limited resources" an integrated water management system will have to be developed. Innovative ideas and systems that reclaim water or use less should be encouraged and supported.

❑ Returns wastes to productive uses

"Closed loop" systems return wastes to production. Our current system of production and consumption of goods can be described as "linear"—extracting raw materials on one end, and disposing of used products on the other. This system is wasteful and expensive, resulting in resource depletion, loss of valuable material, habitat loss, pollution, and waste management problems. Opportunities exist for reuse or remanufacturing in any number of products in any step along the production continuum.

❑ Eliminates the use and release of persistent bioaccummulative toxic chemicals (PBT's)

Persistent bioaccumulative toxins (PBT's) are of particular concern because they are chemicals that have one or more of the following characteristics: they remain in the environment for a long time; they accumulate in fatty tissues, concentrating as they move up the food chain; and can be transported long distances on wind and water currents. Exposure to these chemicals has been linked to a wide range of toxic effects in wildlife and humans, including cancer, endochrine disruption, and reproductive problems.

❑ Protects biological diversity

Species loss is an indication of the declining health of our ecosystems.

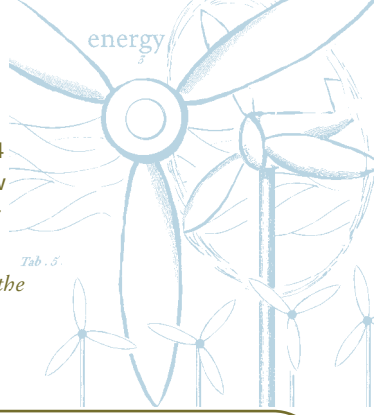
❑ Recognizes the value of the functions provided by natural systems

Our planet's systems provide the world with oxygen, clean water, and energy. We must begin to value the systems over the individual raw materials and realize that we can't rely on technology to replace natural functions. Forests don't simply supply timber, they provide services such as converting carbon dioxide to oxygen, regulating climate effects, sheltering and feeding wildlife, storing water, and holding down soil.

"When the well is dry we know the worth of water."
Benjamin Franklin

Columbia River Carbonates developed an innovative wastewater treatment system that recycles treated waste water to use in its production process and for washing down the plant. Before this conversion, the company treated and discharged more than 14 million gallons of process water into the Columbia River each year. It now discharges no process waste water, even though their production increased by nearly 50o%% during the conversion.

Kaiser Permanente determined that they could replace mercury thermometers and blood pressure measuring devices with non-mercury units when they took into account life cycle environmental costs of using mercury, a PBT.



"In Washington, Oregon, and British Columbia, clean energy is currently a $1.4 billion a year industry. Even if government does nothing to support these new businesses, this sector is expected to grow to a total of $2.5 billion a year over the next 20 years and add over 12,000 jobs in the region."

Poised for Profit: How Clean Energy Can Power the Next High-Tech Job Surge in the Northwest, Climate Solutions, Nov. 2001

Economic Vitality

A Public Market on the Willapa was started in 1997 by a group of local women who wanted to increase their earnings while building a stronger sense of place in Raymond. There are now over 20 small businesses in the waterfront community market with people selling a range of local products.

Watson Furniture Group, in Kitsap County, WA, has been able to "design out" hazardous and non-sustainable materials, thus creating a "no impact" manufacturing process for their office furniture product line.

A sustainable activity is one that:

❑ Contributes to the diversity of the local economy

Just as a diverse, balanced ecosystem is capable of restoring and sustaining itself more effectively than a mono-culture, a diverse local economy will be more successful at providing a healthy, thriving community than one dependent on one or two major industries.

❑ Adds value to natural resources before they leave the community

If businesses in the community can take the raw resources and add value to them, it will stimulate the local economy and be less dependent on market fluctuations.

❑ Uses local materials

By using local materials, environmental, economic, and social benefits are realized: transportation requirements are reduced thus lowering overall costs (economic), and emissions (environmental), and employment stays in the community (social).

photo by Seth Zuckerman, Ecotrust

Linda Hawkshaw of Skeena Wild and her husband outfitted their boat with tanks to keep the fish alive so that they can be processed immediately before shipment, yielding a higher-quality product and thus a greater return for each fish.

From the Heart of Washington is a campaign initiated by the Washington State Department of Agriculture designed to encourage our citizens to buy Washington products and renew understanding and interest in Washington's agricultural industry.

"Sustainability makes economic sense. Investing in renewable resources. Decreasing reliance on non-renewable resources. Eliminating waste. Getting rid of toxicity. These are intuitively logical practices."

John Emrick, Chairman & CEO
Norm Thompson Outfitters

"The best way to avoid regulatory burdens is to design out the waste, pollution and inefficiencies which degrade the environment from the start."

Center for Watershed and Community Health

Economic Vitality

❑ Provides employment opportunities in the community

Using local labor keeps unemployment down and stimulates the local economy. A transient workforce takes their money elsewhere.

❑ Accounts for all of the costs of implementing the project or plan

If the full long-term impacts to the natural resource base, health of the environment, and human health and society were truly recognized and accounted for, it would not make economic sense for many projects to proceed.

❑ Does not depend on long term monitoring to protect human health and the environment

Long-term monitoring uses human and economic resources that could be applied more productively.

❑ Creates economic incentives to reward sustainable behavior

Economic incentives are high motivators in changing behavioral patterns.

Collins Pine has been able to maintain a reserve of more standing trees now than when they originally bought the land by focusing on the forest as a system rather than simply a generator of timber. They harvest trees less rapidly than the renewal rate, keeping all age trees, protecting river corridors, being careful about how they transport, and building roads to minimize erosion.

Seattle City Light's Energy Smart Services offers financial incentives covering up to 70% of the cost for installation of energy efficient lighting and equipment.

"Diverse Bioregional Economies that are more self-sufficient in meeting their own needs will be more competitive and less vulnerable."

Conservation Economy

Local farmer's markets are bringing a closer connection between rural and urban communities, providing jobs, and organic produce.

photo by Katy Langstaf, Ecotrust

Social and Community Well-Being

Islandwood is a new school in the woods on Bainbridge Island. It is housed in one of the first LEED certified sustainable buildings to be built in Washington State. It's mission is to inspire environmental and community stewardship by providing hands-on learning experiences that link science, technology, and the arts in a natural setting. The founders of Islandwood envision a fututre in which generation after generation shares an extraordinary bond of stewardship for each other and the communities in which we live.

The Coalition For a Livable Future is a partnership between existing non-profits in the Portland Vancouver area that looks at long term sustainable development issues.
It is an example of how partnerships and collaborations are effective means to influence policy change.

A sustainable activity is one that:

❑ **Has a sufficiently long-term planning horizon to consider whether it will limit choices of future generations**

If we accept that we do not want to compromise future generations' ability to meet their needs, it is necessary to understand the consequences of actions beyond immediate short term benefits.

❑ **Encourages the collaboration of all the members of the community that are directly or indirectly affected by the proposed course of action**

Collaboration ensures that all potential benefits and consequences of an action are addressed. Citizens and organizations are more committed to actions they've agreed to and can live with.

❑ **Explicitly addresses a goal of fairly sharing its benefits and burdens within the affected community.**

In a just society, no person or group should be above the rest. Meeting basic needs fairly and efficiently is fundamental to a sustainable economy and community.

❑ **Eliminates potential negative impacts to the community rather than shifts them from one community to another**

"There is no away". All matter has a tendency to spread and disperse. If negative consequences are not systematically eliminated, they show up elsewhere.

photo Howard Silverman, Ecotrust

Closeup of certification stamp on wood provided by Endura Hardwoods, which specializes in certified and salvaged wood products.

❑ Creates an awareness of the impacts on long-term environmental, economic, and social well-being.

Developing a "long term vision statement" that reflects a desired outcome promotes strategic and systematic decision-making.

❑ Identifies products, plans or goals so the public recognizes them as sustainable.

Well-defined labeling and certification programs allow individuals and organizations to reflect their values in their purchasing habits.

There are many organizations that have developed standards for sustainable products and activities, including Forest Stewardship Council's Certified Wood Products, Certified Organic Products Labeling, and US Green Building Council's LEED rating system. Participation in programs such as these helps consumers make sustainable choices.

❑ Increases the opportunities to consume less or choose more environmentally friendly products and services.

Thinking in terms of supplying a "service" as opposed to a "product" is an innovative way to offer what is truly desired without creating an obsolete item destined for the landfill.

Interface offers an "evergreen lease" on its interlocking commercial carpet tiles, replacing worn tiles every six months and remanufacturing them into new tiles. Instead of selling a carpet, they are leasing floor covering service.

❑ Contributes to the long-term quality of life of the community.

Most people want to live in a community where they feel safe, have meaningful work and relationships, and enjoy a healthy environment.

photo by Seth Zuckerman, Ecotrust

Fisherman R.J. Kopchuk salvages wood from couches hauled to the landfill and fashions it into new furniture.

Fig. 459.—Bling-fruits.
1 Viola elatior

Identifying Sustainability in the Field: Case Studies

These two case studies illustrate the concepts of sustainable development in Washington state

Sustainable Housing Innovation Partnership

Housing development often ignores long-term community development and land use priorities, with over-sized dwellings, automobile-oriented siting and design, and destruction of green spaces.

The Sustainable Housing Innovation Partnership (SHIP) was formed in 1999 in partnership with the Spokane Neighborhood Action Program (SNAP). More than 70 community partners have been working together to create Riverwalk Point I, a $5.1 million, affordable, sustainable housing and community development project that will be built and will operate over time in a way that protects the environment. In an effort to create a model for development, the Department of Ecology lent expertise in sustainable building practices, and Washington Mutual, one of the community partners, provided the seed money for the project's land acquisition.

Sustainability factors fall into five separate categories: energy conservation, environmental quality, water quality and conservation, resource management and community enhancement. Riverwalk Point will incorporate 47 separate sustainable features, ranging from the use of alternative heating systems to the use of structural insulated panels, drought-tolerant planting, community-based design seminars and workshops, day lighting and passive-solar technologies. http://ship.snapwa.org/

Source: SHIP, Sustainable Housing Innovation Partnership

rendering by Bernardo Wills Architects, P.C.

RESource: A Sustainable Business

The RE Store was started in 1993 by RESources (a non-profit environmental education organization) to address the growing quantity of usable building materials being disposed of in Whatcom County, Washington. With $30,000 from the county, matched by funding from RESources, The RE Store started business with 3 employees in a 4,000 square foot retail space. In 1998, The RE Store generated $600,000 from the collection and sale of used building materials.

Today it is the largest retail store in downtown Bellingham with over 25,000 square feet, 17 employees, and salvage crews working daily with some of the largest contractors in the state. In 1994, after less than one year in business, The RE Store won the "Most Innovative Waste Prevention Program" award from the Washington State Department of Ecology. A second RE Store was opened in Ballard, a neighborhood of Seattle, in September 1999. Salvage work in Seattle's much larger building market will feed both stores, and may lead to the opening of other RE Stores in cities across Washington. http://www.re-sources.org/index.htm

Source: Sustainable Northwest

Appendix

The Department of Ecology's Sustainability Website offers information about sustainability and a comprehensive list of resources. www.ecy.wa.gov/sustainability/

Suggestions for further reading include:

Cradle to Cradle–Remaking the Way We Make Things, by William McDonough, 2002

Natural Capitalism–Creating the Next Industrial Revolution, by Paul Hawken, Amory Lovins, and L. Hunter Lovins, 1999

Fostering Sustainable Behavior, by Doug McKenzie-Mohr and William Smith, 1999

Biomimicry: Innovation Inspired by Nature, by Janine Benyus, 1997

Our Ecological Footprint: Reducing Human Impact on the Earth, by Mathis Wackernagel and William Reese, 1995

Some organizations in the Pacific Northwest addressing sustainability issues

Business and Industry Resource Venture–provides free information, assistance, and referrals to help Seattle businesses improve their environmental performance. www.resourceventure.org/

Climate Solutions–a non-profit championing a regional approach to global warming solutions. www.climatesolutions.com/

Friends of the San Juans–a non-profit working to protect and promote the health and future of the San Juan Islands. www.sanjuans.org/

Northwest Earth Institute–a non-profit that develops programs that educate individuals and organizations on sustainability. www.nwei.org/

Northwest EcoBuilding Guild–an educational forum whose mission is to encourage green building practices. www.ecobuilding.org/

Northwest Environment Watch–a non-profit organization that aims to foster a sustainable economy and way of life in the Pacific Northwest. www.northwestwatch.org

Northwest Product Stewardship Council (NWPSC)– a group of government agencies and non-profit organizations working together with businesses to integrate product stewardship into the policy and economic structures of the Pacific Northwest. www.govlink.org/nwpsc/

Office of Sustainability & Environment–The OSE guides Seattle's city governmental operations toward sustainability. www.cityofseattle.net/environment/

Oregon Natural Step Network–sponsors trainings and workshops to help support The Natural Step framework for businesses and organizations. www.ortns.org/

Oregon Solutions–Oregon's sustainability resource. www.oregonsolutions.net/

Pacific Northwest Pollution Prevention Resource Center (PPRC)–the Northwest's leading resource for promoting a cleaner environment through pollution prevention. www.pprc.org/

Sustainable Seattle–volunteer-based civic network and forum. www.sustainableseattle.org/

Sustainable Community RoundTable in Olympia–facilitating a process of dialogue, vision, action, and celebration to help create a sustainable community in South Puget Sound. www.olywa.net/roundtable/

Sustainable Northwest–a Portland, Oregon-based non-profit organization dedicated to forging a new economy in the Pacific Northwest. www.sustainablenorthwest.org/

Toward Sustainable Business–EPA Region 10 site on sustainable business. www.epa.gov/r10earth/sustainability/towardframe.htm

1000 Friends of Washington–promotes sound planning to achieve sustainable growth management. www.1000friends.org/

Washington Toxics Coalition–a non-profit organization dedicated to protecting public health and the environment by identifying and promoting alternatives to toxic chemicals. www.watoxics.org/toxmenu.asp

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"The world will not evolve past its current state of crisis by using the same thinking that created the situation"

Albert Einstein